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NOTICE OF ALLOWANCE AND FEE(S) DUE

25537	7590	07/27/2009

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ARLINGTON, VA 22201-2909

EXAMINER
FIELDS, COURTNEY D

ART UNIT	PAPER NUMBER
2437	

DATE MAILED: 07/27/2009

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/804,192	03/19/2004	Brig Barnum Elliott	03-4041	6754

TITLE OF INVENTION: SYSTEMS AND METHODS FOR IMPROVED MEDIA ACCESS CONTROL

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	$1510	$0	$0	$1510	10/27/2009

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PTOL-85 (Rev. 08/07) Approved for use through 08/31/2010.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: <u>Mail</u>   **Mail Stop ISSUE FEE**
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I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

_____ (Depositor's name)

_____ (Signature)

_____ (Date)

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nonprovisional	NO	$1510	$0	$0	$1510	10/27/2009

EXAMINER	ART UNIT	CLASS-SUBCLASS
FIELDS, COURTNEY D	2437	726-026000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.

☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list

(1) the names of up to 3 registered patent attorneys or agents OR, alternatively,

(2) the name of a single firm (having as a member a registered patent attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1 _____

2 _____

3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE   (B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent) : ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

☐ Issue Fee

☐ Publication Fee (No small entity discount permitted)

☐ Advance Order - # of Copies _____

4b. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above)

☐ A check is enclosed.

☐ Payment by credit card. Form PTO-2038 is attached.

☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27.

☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature _____   Date _____

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Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)
(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 513 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 513 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

PTOL-85 (Rev. 08/07) Approved for use through 08/31/2010.

	Application No.	Applicant(s)
Notice of Allowability	10/804,192	ELLIOTT, BRIG BARNUM
	Examiner	Art Unit
	COURTNEY D. FIELDS	2437

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to <u>07 April 2009</u>.

2. ☒ The allowed claim(s) is/are <u>1,3-16 and 18-25</u>.

3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

        a) ☐ All   b) ☐ Some*   c) ☐ None   of the:

            1. ☐ Certified copies of the priority documents have been received.

            2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

            3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

    * Certified copies not received: _____ .

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.

    (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached

        1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____ .

    (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____ .

    Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)

2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____

4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

5. ☐ Notice of Informal Patent Application

6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____ .

7. ☒ Examiner's Amendment/Comment

8. ☒ Examiner's Statement of Reasons for Allowance

9. ☐ Other _____ .

EXAMINER'S AMENDMENT

1.   An examiner's amendment to the record appears below. Should the changes

and/or additions be unacceptable to applicant, an amendment may be filed as provided

by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be

submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview

with Philip J. Hoffmann on 7/13/2009.

The application has been amended as follows:

Please amend the following claims:

1. (**Currently Amended**) A method of medium access control comprising:

receiving a first message including a first integer;

sending a second message including a second integer, the second message

sent in response to the first message;

receiving, in response to the second message, a third message including data

and a third integer, the third integer serving to authenticate the third

message; [[and]]

sending, in response to the third message, a fourth message including a fourth

integer, the fourth message serving to acknowledge receipt of the third

message: and

using, as the first, second, third, and fourth integers, the same value.

2. (**Cancelled**)

3. (**Currently Amended**) The method of claim [[2]] 1, further comprising:

   using, as the same value, a random integer.

4. (**Currently Amended**) The method of claim [[2]] 1, further comprising:

   using, as the same value, a pseudorandom integer.

5. (**Currently Amended**) The method of claim [[2]] 1, further comprising:

   using, as the same value, a time value.

6. (**Currently Amended**) The method of claim [[2]] 1, further comprising:

   using, as the same value, a time value based on a Global Positioning System

   (GPS).

13. (**Currently Amended**) A method of medium access control in a wireless network

   comprising:

   receiving a request to send message, the request to send message including a

       first integer;

   sending, in response to the received request to send message, a clear to send

       message including the first integer and a second integer;

receiving, in response to the clear to send message, a data message including

the second integer, the second integer serving to authenticate the data

message; [[and]]

sending, in response to the received data message, an acknowledgement

message including the first integer; and

using, as the first and second integers, the same value.

14. (**Currently Amended**) A system of medium access control in a wireless network

comprising:

means for receiving a request to send message, the request to send message

including a first integer;

means for sending, in response to the received request to send message, a clear

to send message including the first integer and a second integer;

means for receiving, in response to the clear to send message, a data message

including the second integer, the second integer serving to authenticate

the data message; and

means for sending, in response to the received data message, an

acknowledgement message including the first integer, wherein the same

value is used for the first and second integers.

15. (**Currently Amended**) A system of medium access control comprising:

means for receiving a first message including a first integer;

means for sending a second message including a second integer, the second

message sent in response to the first message;

means for receiving a third message, in response to the second message,

including data and a third integer, the third integer serving to authenticate

the third message; and

means for sending, in response to the third message, a fourth message including

a fourth integer, the fourth message serving to acknowledge receipt of the

third message, <u>wherein the same value is used for the first, second, third,</u>

<u>and fourth integers</u>.

16. (**Currently Amended**) A system for medium access control, the system

comprising:

a processor; and

a memory,

wherein the processor and the memory are configured to perform a method

comprising:

receiving a first message including a first integer;

sending a second message including a second integer, the second

message sent in response to the first message;

receiving, in response to the second message, a third message

including data and a third integer, the third integer serving to

authenticate the third message; [[and]]

sending, in response to the third message, a fourth message

including a fourth integer, the fourth message serving to

acknowledge receipt of the third message;

using, as the first, second, third, and fourth integers, the same

value.

17. (**Cancelled**)

18. (**Currently Amended**) The system of claim [[17]] 16, further comprising:

using, as the same value, a random integer.

19. (**Currently Amended**) The system of claim [[17]] 16, further comprising:

using, as the same value, a pseudorandom integer.

20. (**Currently Amended**) The system of claim [[17]] 16, further comprising:

using, as the same value, a time value.

21. (**Currently Amended**) The system of claim [[17]] 16, further comprising:

using, as the same value, a time value based on a Global Positioning System

(GPS).

23. (**Currently Amended**) A system for medium access control in a wireless network,

the system comprising:

a processor; and

a memory,

wherein the processor and the memory are configured to perform a method

comprising:

receiving a request to send message, the request to send message

including a first integer;

sending, in response to the received request to send message, a

clear to send message including the first integer and a

second integer;

receiving, in response to the clear to send message, a data

message including the second integer, the second integer

serving to authenticate the data message; and

sending, in response to the received data message, an

acknowledgement message including the first integer,

wherein the same value is used for the first and second

integers.

24. (**Currently Amended**) A computer-readable storage medium containing

instructions which, when executed on a data processor, cause the data processor

to perform a method of medium access control, the method comprising:

receiving a first message including a first integer;

sending a second message including a second integer, the second message

   sent in response to the first message;

receiving, in response to the second message, a third message including data

   and a third integer, the third integer serving to authenticate the third

   message; [[and]]

sending, in response to the third message, a fourth message including a fourth

   integer, the fourth message serving to acknowledge receipt of the third

   message; and

using, as the first, second, third, and fourth integers, the same value.

25. (**Currently Amended**) A computer-readable storage medium containing

instructions which, when executed on a data processor, cause the data processor to

perform a method of medium access control in a wireless network, the method

comprising:

receiving a request to send message, the request to send message including a

   first integer;

sending, in response to the received request to send message, a clear to send

   message including the first integer and a second integer;

receiving, in response to the clear to send message, a data message including

   the second integer, the second integer serving to authenticate the data

   message; [[and]]

sending, in response to the received data message, an acknowledgement

message including the first integer; and

using, as the first and second integers, the same value.

DETAILED ACTION

1.   Claims 1, 3-6, 13-16, 18-21, and 23-25 have been amended.

2.   Claims 2 and 17 have been cancelled.

3.   Claims 1, 3-16, and 18-25 are pending.

Response to Arguments

2.   Applicant's arguments filed 07 April 2009 have been fully considered and they

are persuasive.

Allowable Subject Matter

3.   Claims **1, 3-16, and 18-25** are allowed.

The following is an examiner's statement of reasons for allowance: The present

invention is directed to a communication system and method for medium access control

on a wireless network. Claims 1, 15, 16, and 24, identifies the uniquely distinct features

"**receiving, in response to the second message, a third message including data

and a third integer, the third integer serving to authenticate the third message;

and sending, in response to the third message, a fourth message including a

fourth integer, the fourth message serving to acknowledge receipt of the third

message; and using, as the first, second, third, and fourth integers, the same

value**". Claims 13, 14, 23, and 25, identifies the uniquely distinct features "**receiving,**

in response to the clear to send message, a data message including the second

integer, the second integer serving to authenticate the data message; and

sending, in response to the received data message, an acknowledgement

message including the first integer; and using, as the first and second integers,

the same value".

The closest prior art, Zweig et al. (US Patent No. 7,154,854) discloses an

automatic distribution of RTS and frag thresholds. In a wireless network system

comprising a wired backbone network, an access point, and one or more associated

wireless unit data coupled to the access point by way of a wireless transmission

medium, a method of enabling fragmentation of data packet above a fragmentation

threshold in one or more wireless units, comprising transmitting a message to the one

or more wireless unit having a first control data that causes the one or more wireless

units to implement fragmentation threshold in transmitting data packets to the access

point. The message is preferably a multicast data packet intended for the one or more

associated wireless units. The message may further include a specified fragmentation

to be used, and also another control signal for enabling request to send (RTS) and clear

to send (CTS) transmission by the one or more wireless units.

However, either singularly or in combination, Zweig et al. fail to anticipate or

render obvious the claimed limitations of receiving in response a second message, a

third message including data and a third integer, the third integer serving to authenticate

the third message and using, as the first, second, third, and fourth integers, the same

value.

The closest prior art, Semper et al. (US Patent No. 6,546,001) discloses a system and method for a medium access control message acknowledgment. There is disclosed for use in a wireless communications device, a medium access control (MAC) message acknowledgment system for acknowledging MAC messages transmitted in an RF control channel between the wireless communications device and a remote communications unit. The MAC message acknowledgment system comprises a control processor capable of receiving an outbound MAC message unit from a MAC layer device in the wireless communications device and attaching a header to the outbound MAC message unit to thereby form an outbound MAC message suitable for transmission to the remote communications unit, the header comprising logic bits identifying the outbound MAC message unit to the remote communications device to thereby enable the remote communications unit to acknowledge receipt of the outbound MAC message.

However, either singularly or in combination, Semper et al. fail to anticipate or render obvious the claimed limitations of receiving in response a second message, a third message including data and a third integer, the third integer serving to authenticate the third message and using, as the first, second, third, and fourth integers, the same value.

4.   Therefore, **claims 1, 13-16, and 23-25**, and the respective **dependent claims 3-12 and 18-22** are in condition for allowance.

Conclusion

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to COURTNEY D. FIELDS whose telephone number is (571)272-3871. The examiner can normally be reached on Mon - Thurs. 6:00 - 4:00 pm; off every Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Emmanuel Moise can be reached on 571-272-3865. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Courtney D. Fields/
Examiner, Art Unit 2437
July 13, 2009

/Emmanuel L. Moise/
Supervisory Patent Examiner, Art Unit 2437